# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Donald R. Huffman,

et al.

Examiner: Kalinchak, S.

Serial No.: 580,246

Art Unit: 113

Filed: September 10, 1990

Docket: 7913Z

For: NEW FORM OF CARBON

Dated: October 12, 1993

Honorable Commissioner of Patents and Trademarks Washington, DC 20231

### PETITION TO THE COMMISSIONER UNDER 37 C.F.R. SS1.181(a)(1) and (a)(3); AND 1.183

Sir:

Applicants Huffman and Krätschmer, through their attorneys, respectfully petition the Honorable Commissioner of Patents and Trademarks pursuant to 37 C.F.R. §§1.181(a)(1) and (a)(3) and 1.1831 to vacate and/or modify the requirements2 to copy claims set forth in the above-application by Official Action of September 22, 1993.

Applicants have sought reconsideration before the responsible Examiner, and the Office of the Group Director, accordingly this Petition is ripe for consideration. required fee is authorized by separate charge to Miscellaneous Deposit Account No. 19-3886.

The requirement subject of this Petition mandates a response by October 22, 1993. Accordingly, applicants request as preliminary relief a stay of that requirement until a reasonable period after this Petition may be decided.

<sup>&</sup>lt;sup>1</sup>This Petition raises policy issues concerning the application of the Rules of Practice in circumstances believed to be novel (and with unintended effect) which gives rise to the invocation of Rule 183 and the attendant requests for the personal intervention of the Commissioner and a stay of the requirements imposed in prosecution, pending a ruling.

<sup>&</sup>lt;sup>2</sup>Application of the requirement is among those procedural matters not within the jurisdiction of the Board; rather it is reserved to a ruling by the Commissioner. See Ex parte C 27 USPQ 1492, 1494 (BPAI 1993) citing, in Footnote 3 <u>In re Hengehold</u> 440 F.2d 1395 169 USPQ 473 (CCPA 1971) and <u>In re Haas</u>, 486 F.2d 1053, 179 USPO 623 (CCPA 1973). DF11025 11/24/93 07580246). 130.00CH 19-3886 110 122

Applicants also request the personal intervention of the Commissioner in relation to the apparently novel and far reaching policy issues presented.

An Oral Hearing is requested.

#### I. BACKGROUND

Huffman and Krätschmer are widely recognized in the scientific community and related literature to have been the first researchers to have recovered and characterized  $C_{60}$  and  $C_{70}$ , among other fullerenes existing in carbon soot, prepared by vaporizing carbon, under certain conditions.

This development was presaged by a long felt need, for the theoretical structure had been postulated many years before but the product had never been isolated in quantities required for characterization and resultant use in commerce. In fact, no such material was available to researchers in any quantity until after the invention of Huffman and Krätschmer.

This application contains allowed claims as follows:

- 85. Substantially pure solid  $C_{60}$ .
- 90. Substantially pure solid C70.
- 94. Substantially pure crystalline C60.
- 95. Substantially pure crystalline C70.

The availability of quantities of  $C_{60}$  in particular in amounts susceptible of further research and use spawned an industry burgeoning still as a consequence of the unique qualities and characteristics of this material. A wealth of patent applications were filed based upon newly-recognized uses some of which naturally depended for their novelty upon properties inherent in the new material.

But due to a careful examination before the United States Patent and Trademark Office of the Huffman and Krätschmer

applications, and despite widespread publications of these pioneer developments, junior use applications were granted by the United States Patent and Trademark Office. These applications uniformly recognized the prior contributions of others including Huffman and Krätschmer and did not lay claim to the basic invention in fullerenes, recognizing that contribution to the art to be attributable to Huffman and Krätschmer.

The patentability of the junior use disclosures could be adversely affected in particular, by the impending grant of the Huffman and Krätschmer applications, in that 35 U.S.C. \$102(e) could then be invoked to provide anticipating disclosure in those pioneer applications as to proposed commercial realities in the form of utility statements there set forth which did not appear in the academic papers. As a result of the examination process, no such 35 U.S.C. \$102(e) reference being available, certain use cases were passed to grant. Until grant, and the availability of the Huffman and Krätschmer application as prior art under 35 U.S.C. \$102(e), no party had this reference to use in examination/reexamination or in relation to any other validity contest.

But the Huffman and Krätschmer application, although containing allowed claims to the basic invention, would not be then or now patented because of a further constructed impediment, not arising out of the prior art, but out of the improvidently granted junior applications of others, and the present

<sup>&</sup>lt;sup>3</sup>The present application for products was subjected to restriction in this case in an Office Action dated August 12, 1991 with regard to process claims, now presented in method Application Serial No. 855,959.

 $<sup>^4</sup>$ Thus, these applications may have disclosed, expressly or by reference, written descriptions or enabling disclosures of the base material  $C_{60}$  by reference to the publications of Huffman and Krätschmer. Nevertheless, applicants were <u>not</u> required as a condition of grant to contest priority of invention as to these basic inventions with each other - it was understood as simply an elucidation of prior art.

intervention of the Patent and Trademark Office, purportedly driven by a desire to establish the unpatentability and hence invalidity of the junior use cases (not withstanding the burden this might impose on Huffman and Krätschmer).

On June 1, 1993 the United States Patent and Trademark
Office first imposed a requirement<sup>5</sup> that applicants Huffman and
Krätschmer copy a claim in U.S. Patent No. 5,114,477 (filed some
12 months after their first application). That patent
specifically acknowledged the contribution of Huffman, Krätschmer
and others and never claimed the fullerene product, only the use
in ink compositions. Throughout further prosecution, the United
States Patent and Trademark Office maintained the requirement, in
essence, leading to the present demand that applicants copy the
following (suggested) claim.

186. A pigment composition containing  $C_{60}$ ,  $C_{70}$  or a mixture thereof.

In the course of discussions had with a representative of the Group Directors Office (Mr. John Doll) the requirement was modified and maintained, but then extended to cover yet another U.S. Patent, No. 5,234,474 and applicants have been required to make yet another (suggested) claim, as follows:

187. A lubricating composition comprising  $C_{60}$ ,  $C_{70}$  or a mixture thereof.

In implementing the requirement(s), and in anticipation of the declaration of related interference(s), the Examiner has necessarily concluded that (1) the inventions for  $C_{60}$  and  $C_{70}$  are patentably indistinct from claims for ink compositions or

<sup>&</sup>quot;SThe related rule would have the 'requirement' be a 'suggestion' but this is a wolf in sheep's clothing. Failure to copy the claim leads to an interference <u>estoppel</u> rejection: 37 C.F.R. §1.605; MPEP 2305.01; copying the claim with presentation of a motion of no interference in fact in the related interference proceeding imposes a substantive burden. <u>Behr v. Talbott</u>, 27 USPQ 1401 (BPAI 1992); 58 Fed. Reg. (183) 49432 (September 23, 1993).

lubricating compositions as proposed; (2) that in consequence, such claims will be designated as corresponding to such counts as may be the subject of the interference declarations; and (3) that in the event of failure to copy such claims, or an adverse award, such claims would be either a) deemed disclaimed or b) subjected to an interference estoppel rejection.

#### II. SUMMARY AND REQUEST FOR RELIEF

This Petition addresses three issues, seriatim:

- (1) Whether the requirement(s) to copy claims
  (respectively) have been properly imposed in accordance with the
  Rules of Practice;
- (2) Whether the related determination that the product claims are patentably indistinct from the use claims or the interference issue has been properly made; 6
- (3) Whether as a matter of policy, in the circumstances presented, the Commissioner of Patents and Trademarks should waive the rules (and perhaps propose revision thereof) to avoid the manifest injustice burdening Huffman and Krätschmer and those similarly situated, relieving applicants of the requirements including the unjustified prospective estoppel imposed by the examining authorities.

An alternative exists in the rules and statute. The Commissioner has the power and the opportunity to reexamine improvidently issued patents. (35 U.S.C. §303; 37 C.F.R. §1.520.) Issuance of the Huffman and Krätschmer applications (or any part thereof) will afford the Office a 35 U.S.C. §102(e) reference which if it be true the inventions are identic would be

<sup>&</sup>lt;sup>6</sup>Applicants are entitled to a supervisory ruling at this stage because the alternative, a ruling on motion in the resulting interference, is not an administrative equivalent: the latter imposes procedural burdens substantively inconsistent with the present requirement to establish, <a href="mailto:prima\_facie">prima\_facie</a>, the prospect of error justifying review or a matter of policy as a matter of administrative law reserved to the Commissioner.

sufficient to justify a substantive rejection of the same use cases proposed for interference, with the burden on the reexamination patentee to establish patentability over the reference.

In the present circumstances, the United States Patent and Trademark Office places the burden on the pioneer inventors to establish by motion either or both of the propositions that there is no interference in fact or that the product claims are patentably distinct. This is simply inequitable.

Applicants request that the Commissioner acting pursuant to his supervisory authority determine that

- (1) the requirement to copy claims has been erroneously applied as a matter of practice and policy and should be withdrawn; and if required by application of the present Rules of Practice, such Rules to the extent necessary should be waived in the circumstances of this matter;
- (2) the conclusion of law as to the patentable indistinctness of the product and use claims is unsupported by the necessary finding of facts, and is unsupportable and erroneous as a matter of law;
- (3) policy considerations justify modification in and relief from the requirements imposed such that petitioners should be relieved therefrom, and allowed or allowable claims in their applications should proceed to grant.

## III. THE REQUIREMENT TO COPY CLAIMS IS UNJUSTIFIED

The Rules of Practice permit, and the MPEP encourages Examiners to 'suggest' claims to applicants for the purpose of interference, where otherwise justified. (37 C.F.R. §§1.605-1.606; MPEP 2306.)

A condition to such 'suggestion' is a conclusion that the <u>claims</u> of the respective (mooted) parties be patentable, and that they define the same patentable invention, i.e., that the

claims corresponding to the mooted count are patentably indistinct. Conclusions of law, with related and underlying findings of fact to this effect, although sometimes implicit in the requirement itself, are nevertheless a condition precedent to such a requirement, and as conclusions of law are subject to review de novo. The underlying facts are also reviewable to determine whether individually and as a whole they are sufficient, in probative merit, character and weight to support the findings made and support and justify the conclusions drawn therefrom.

The MPEP in defining patentable distinctness in this respect directs the Examiner to the discussion of double patenting principles in MPEP §804.03 and references the rule of In re Rekers 203 USPQ 1034 (Commr. Pats. 1979) establishing that a two way obviousness test is required in applying this principle as well as that which governs the determination of 'conflicting claims' under Rule 78(c).

Here, however, there is presented by Huffman and Krätschmer no claim to ink or lubricating compositions; indeed there is no claim to any use at all; only product claims (and process of preparation claims, restricted) were presented. Thus, as regards the oath in the case, and 'that which the applicant regards as his invention' (35 U.S.C. §112, second paragraph) there is expressed no intention to claim the invention(s) now required to be added to the case. There is in fact nothing in the circumstances which leads or requires the Commissioner or the Examining Corps to act in this respect to force parties to engage in an unwanted procedure. Nor does it serve the public interest.

Specifically, there is no interference-in-fact as between the existing product claims, and the use claims notwithstanding the unsupported ruling on patentable indistinctness, next discussed. The junior parties have each

acknowledged the status of Huffman and Krätschmer as prior art - indeed there was no source for the material subject of the use until after the discovery by Huffman and Krätschmer. So the interference is an unnecessary vehicle to an obvious result and has no apparent purpose except to burden the parties.

why is it indeed, that the Commissioner will not issue the allowed claims of Huffman and Krätschmer, providing a 35 U.S.C. §102(e) reference, and thereafter sua sponte seek reexamination (37 C.F.R. §1.520) of such use cases as would be patentably indistinct from the product and its inherent properties per se?

Consider the situation of two parties who respectively acknowledge a seminal advance in a particular field, yet describe respectively distinct improvements. They describe and enable in their specifications the basic invention, as they must but in consequence do we place them in interference with each other? Of course not. And why not? Because the commonly described invention is that of another which applicants do not regard as their own.

There is, however, a certain facile simplicity to the United States Patent and Trademark logic sought to be imposed. If indeed, so it goes, you do not wish to seek claims to the use then simply disclaim that invention by failing to meet the requirement.

Then, given the conclusive and presently controlling ruling by the United States Patent and Trademark Office as to patentable distinctness, (albeit never the subject of review for correctness) that is, that claims to ink compositions are

Notwithstanding that this would leave an invalid claim to the use in the hands of third parties; suddenly the interest in correcting the improvident patent issue has been dissipated, and converted into satisfaction that at least the hostaged first inventor has been forced to act to his detriment. Why this is a desired or suitable result is wholly unclear from a public policy point of view.

patentably indistinct from claims to the product, why need applicants copy any claims to the compositions of the junior use applicants? Why need applicants copy any claims at all? Under the new interference rules, if two inventions are patentably indistinct, they may be placed in interference. Upon that basis, without more, the Patent and Trademark Office could declare an interference between Huffman and Krätschmer and the respective patentees in U.S. Patent Nos. 5,234,474 and 5,114,477 or others; indeed all should be part of the same interference, on that theory.

The rulings: (1) that applicant make a claim to an invention it chose not to assert: in this case ink or lubricant composition(s); yet (2) applicants asserted and allowed product claims correspond to the mooted count directed to the ink or lubricant compositions are internally inconsistent. If the product claims to  $C_{60}$  and/or  $C_{70}$  are patentably indistinct from the ink or lubricant composition claims, then applicants need not copy claims to implement an interference under the new rules; and if applicants do need to copy such claims to set up an interference, then the ruling on patentable distinctness is clearly wrong; the product claims are patentably distinct as they should be. Clearly, at least one of the two rulings is wrong.

It is respectfully submitted that both are wrong.

There is no basis, for the reasons set forth above, adequately established on this record, why applicants should in law or in equity be required to make claims to the junior issued inventions. The improvident grant of junior patents by the Patent and Trademark Office is not attributable to any action or

<sup>\*</sup>Applicants would be barred from contesting priority of invention were they to fail to have presented claims to the same invention within one year of the junior use patents. (35 U.S.C. \$135(b).) If the United States Patent and Trademark Office objective were to secure that result, why not let the period run and impose a statutory estoppel rather than indulge in the artificial and contrived exercise here presented?

inaction by Huffman et al. The logic of the situation would be no more or less driven whether a patent had or had not issued. The Patent and Trademark Office might as well require without any more basis that Huffman et al. make a claim in gross for example (and without regard for 35 U.S.C. §112) to a superconductor comprising fullerenes because those knowledgeable appreciate that this is an important and established use which may depend upon an inherent property of the product.

The Commissioner is respectfully petitioned to direct the withdrawal of the requirements to copy claims.

# IV. THE PRODUCT AND USE CLAIMS ARE PATENTABLY DISTINCT; THE PRODUCT CLAIMS SHOULD NOT BE DESIGNATED AS CORRESPONDING TO THE COUNT

But this only raises the second issue. It is not simply a question of the ink or lubricating composition claims that are at issue here. Applicants might be prepared pro arguendo to disclaim any interest in the uses disclosed, and leave the validity of use patents to another day. But applicants are not permitted to do so because of the related conclusion that claims to the product are patentably indistinct from claims to the use. Thus, if applicants elect not to contest the use inventions, then the United States Patent and Trademark Office, imposing interference estoppel principles will reject the product claims, in essence indulging the legal fiction that the junior use applicants are the real, true and first inventors of the products they could not even put their hands on until provided by Huffman and Krätschmer, the losers in this fictional drama.

Is this the proper purpose to which Patent and
Trademark Office rules and practice should be put? And to what
end? Clearly, this does not serve the public interest.

The error lies in the finding of patentable indistinctness; and the assignment of burden. In this case, the conclusion of patentable indistinctness as between the product

and the use seems driven by the desire to establish that the use patents must be invalid as they purportedly depend only upon an inherent property of the fullerene molecules. But if that were true, then other references replete in the period since the invention was made and predating these juniors should be sufficient. If the Office has decided such references, evidencing the product and certain properties thereof do not ipso facto defeat the patentability of the use claims, how can the product claims of Huffman and Krätschmer be deemed the same invention as the use? Why, if the ink or lubricating qualities are inherent in the product, is it not the case that publication of the product per se, as in Nature 1990, 347 354-358 does not constitute anticipation? And if it does not, are not the product and use claims prima facie patentably distinct?

So it is simply the fact that the Office finds it easier still, by reason of Huffman and Krätschmer's utility statement to defeat novelty entirely without reference to inherency, and thus holds the Huffman and Krätschmer applications hostage to the process.

It is easy enough to see that at least an ink or lubricating composition without more may be deemed unpatentable (i.e., obvious in view of) the C<sub>60</sub> or C<sub>70</sub> product, 10 but given the fact well established in the art, that no C<sub>60</sub> or C<sub>70</sub> existed in any quantity before the invention of Huffman and Krätschmer, how could it conceivably be the case that the junior inventors are prior as to the product especially in view of their own admissions that they are not?

Pand how does such a finding track with the absence of findings here? What judgements did the Patent and Trademark Office make about the prior art effect of the body of literature describing the product invention?

This is a <u>one</u> way test only, insufficient under <u>In re</u> Rekers op cit, p. 7.

Further it may not <u>ipso facto</u> be a correct proposition that a product and its many uses constitute the same, i.e. identic invention. Intuitively, one does not equate a new form of carbon with its use as an industrial paint pigment and then draw the conclusion that the same material may form part of a toner composition for xerography. To the extent one does so it may be characterized as an obvious to try analysis, not <u>per se</u> obviousness.

Here we know the conclusion but we know <u>nothing</u> of the findings. As stated above, it may be understood that all uses of fullerenes defined by claims to be presented by third parties are not by the mere fact of that utility <u>ipso facto</u> patentably indistinct from the product claims <u>per se</u>. So some standard is called for. The Examiner is thus seen to have an obligation to establish <u>prima facie</u> patentable indistinctness as between the product and the use.

No such findings may be found on this record. If it be the view of the Patent and Trademark Office that the ink use is inherent then that conclusion must be based upon some <u>fact</u>. That Xerox claims might be properly rejected for obviousness for example based upon Huffman and Krätschmer's disclosure is not such a fact. Moreover, the fact that an industrial paint pigment can be formed from  $C_{60}$  or  $C_{70}$  supplied by the Huffman et al. disclosure may not be used <u>against</u> that inventive entity in

establishing patentable indistinctness. This is in the present setting the improper use of the inventors own disclosure. It is incumbent upon the Examiner to establish through another source that the inks or lubricants are obvious from or inherent in the carbon products of Huffman et al.

Applicants are aware of no such teaching.

The Examiner has referred to no such teaching.

There is to the knowledge of applicants no basis for any such teaching, save for applicants disclosure.

The use of applicants disclosure adverse to the patentability of its claims is prohibited.

There is no supportable finding of patentable indistinctness as between the product and the use claims.

Thus, if the mooted interference be sustained, it must be upon the basis that applicants are properly required to make the claims. It cannot be grounded upon unproven patentable indistinctness. And the failure of the first premise is as set forth above.

If the circumstances do not support the common invention theory, then let us examine the claims. The junior parties did not claim fullerenes per se; indeed the Patent and Trademark Office is not suggesting (insofar as is understood, in any event) that the ink and lubricating composition inventions inter se are interfering and the senior party never claimed the uses.

It is not disputed that claims, <u>if</u> voluntarily presented, as to inks or lubricating compositions, <u>per se</u> may create an interference in fact with similarly addressed claims in junior patents provided that the requirement to make such claims is justifiedly upheld.

But it is seriously contested that it is erroneous to find that the product claims of this application be deemed

patentably indistinct from the junior uses. If that principle were carried to its logical conclusion every product claim would be placed in interference with every use application ad infinitum. The burden is properly placed upon the junior use applicant to establish whether the claim asserted is patentable over the normal, expected, or known properties of the material per se. The burden here is being misplaced upon the original inventor of the product.

Applicants thus assert that the determination (conclusion of law) of patentable indistinctness as between product and use is improper as a matter of law, and inconsistent with Patent and Trademark Office policy directives and guidelines applicable to such determinations in the circumstances obtaining. If the interference(s) be justified of assertion it must be upon the voluntary<sup>11</sup> assertion of claims by the applicants.

# V. PATENTABLE INDISTINCTNESS BETWEEN PRODUCT AND ALL USES IS ABSURD

The absurdity of the finding of patentable indistinctness as between the product and the uses in the present context may be demonstrated by reference too their patent claims of junior use applicants.

Take Claim 21 treated as representative for purposes of the to be imposed interference with U.S. Patent No. 5,114,477; it issued with companion cases U.S. Patent Nos. 5,178,980, 5,188,918, 5,215,841 and 5,232,810 (copies annexed) apparently all patentably distinct. Logic tells us that if the ink claim of U.S. Patent No. 5,114,477 is patentably indistinct from the product claims of Huffman and Krätschmer Application Serial No. 580,246, then the latter are also mootedly patentably indistinct from other compositions containing such fullerenes for example

<sup>11</sup>It should not require elucidation that a 'suggestion' to copy claims under the burden of an adverse ruling on priority is hardly voluntary.

the above enumerated, especially if the fullerene component alone also justifies an interference with U.S. Patent No. 5,234,474 for lubricating compositions.

Then see Claim 23 of U.S. Patent No. 5,172,278 (copy annexed). If the standards are applied consistently, this claim is just as patentably indistinct from the claims of Huffman et al. as are the ink claims, and yet another interference should be declared.

The example illustrates the inconsistency of the present rulings: if patentable indistinctness as between product and use claims has truly been established on this record (which applicants strenuously deny) then no requirement to copy claims is a necessary prerequisite (under current rules) to an interference with any junior use applicant whether or not Huffman and Krätschmer can technically make a claim to the user. The proposition is dangerous because it is fundamentally wrong. And it is wrong, in our submission, because the Patent and Trademark Office has been driven by the one-way proposition (inconsistent with In re Rekers op cit p. 7) of obviousness of the use compositions in view of the product, ignoring the only unassailable fact that the required two-way analysis does not track: the junior use applicants cannot be the prior inventors of the Huffman and Krätschmer product because no one had any useful quantities of fullerenes prior to the invention of Huffman and Krätschmer.

This is a <u>fundamental</u> finding of fact, upon which the house of cards constructed here cannot rest. The rulings are incontestably in error, and work a manifest injustice on Huffman and Krätschmer.

#### VI. CONCLUSION

For the reasons set forth hereinabove applicants request that the Commissioner acting pursuant to his supervisory authority determine that

- (1) the requirement to copy claims has been erroneously applied as a matter of practice and policy and should be withdrawn; and if required by application of the present Rules of Practice such Rules to the extent necessary should be waived in the circumstances of this matter;
- (2) the conclusion of law as to the patentable indistinctness of the product and use claims is unsupported by the necessary finding of facts, and is unsupportable and erroneous as a matter of law;
- (3) policy considerations justify modification in and relief from the requirements imposed such that petitioners should be relieved from any adverse rulings or the impact of estoppel, and allowed or allowable claims in their applications should proceed to grant.

The requirement subject of this Petition mandates a response by October 22, 1993. Accordingly, applicants request as preliminary relief a stay of that requirement until a reasonable period after this Petition may be decided.

Applicants also request the personal intervention of the Commissioner in relation to the apparently novel and far reaching policy issues presented.

An Oral Hearing is requested.

Finally, applicants respectfully request that, to facilitate such court intervention as may be sought by petitioners, a ruling on this petition be specifically designated as 'Final Agency Action'.

Respectfully submitted,

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SDM:njl